The demand must be filed directly with the competent International Preliminary Examining Authority or, if two or more Authorities are competent, with the one chosen by the applicant. The full name or two-letter code of that Authority may be indicated by the applicant on the line below:

PCT

CHAPTER II

DEMAND

under Article 31 of the Patent Cooperation Treaty:

The undersigned requests that the international application specified below be the subject of international preliminary examination according to the Patent Cooperation Treaty and hereby elects all eligible States (except where otherwise indicated).

For	International Preliminar	y Examining Authority	y use only
]	•
Identification of IPEA		Date of receipt of D	EMAND
Box No. I IDENTIFICATION OF T	HE INTERNATIONAL	APPLICATION	Applicant's or agent's file reference PCT/ZA/F193
International application No.	International filing da	ate (day/month/year)	(Earliest) Priority date (day/month/year)
PCT/ZA/99/00096	17 September 199		5 October 1998 (05/10/98)
Title of invention PROCESS FOR DISTILLATES	PRODUCING M PRODUCED BY	IDDLE DISTI	ILLATES AND MIDDLE
Box No. II APPLICANT(S)			
Name and address: (Family name followed by g The address must include po		ull official designation.	Telephone No.:
SASOL TECHNOLOGY (PTY) LTI 1 Sturdee Avenue, Rosebank Johannesburg 2196)		Facsimile No.:
South Africa			Teleprinter No.:
State (that is, country) of nationality: ZA		State (that is, country)	of residence:
Name and address: (Family name followed by gi	ven name; for a legal entity, fu	ill official designation. The	address must include postal code and name of country.)

State (that is, country) of nationality:		State (that is, country)	of residence:
Name and address: (Family name followed by given	en name; for a legal entity, fu	ll official designation. The	address must include postal code and name of country.)
April 1			
a · · · *			
State (that is, country) of nationality:		State (that is, country)	of residence:
Further applicants are indicated on a	continuation sheet.		

Sheet No. 2.

International application No. PCT/ZA/99/00096

	FC1/2/V99/00090
Box No. III AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CO	RRESPONDENCE
The following person is agent common representative	
and K has been appointed earlier and represents the applicant(s) also for international pre	liminary examination.
is hereby appointed and any earlier appointment of (an) agent(s)/common represer	
is hereby appointed, specifically for the procedure before the International Prelimi	nary Examining Authority, in addition to
the agent(s)/common representative appointed earlier.	
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)	Telephone No.:
DUNLOP, Alan, J.S.; HAHN, Hans, H; WILLIAMS, Victor, C;	(012) 342 1774
CLELLAND, Sandra, L	Facsimile No.:
HAHN & HAHN INC. 222 Richard Street, Hatfield	(012) 342 3027
Pretoria 0083	Teleprinter No.:
South Africa	тесримски но
Address for correspondence: Mark this check-box where no agent or common rep	resentative is/has been appointed and the
space above is used instead to indicate a special address to which correspondence	
Box No. IV BASIS FOR INTERNATIONAL PRELIMINARY EXAMINATION	
Statement concerning amendments:*	
1. The applicant wishes the international preliminary examination to start on the hasis of:	
the international application as originally filed	
the description as originally filed	
as amended under Article 34	
the claims as originally filed	
as amended under Article 19 (together with any accompanying	statement)
as amended under Article 34	
the drawings as originally filed	
as amended under Article 34	
2. The applicant wishes any amendment to the claims under Article 19 to be conside	red as reversed.
3. X The applicant wishes the start of the international preliminary examination to be po	estnaged until the expiration of 20 months
from the priority date unless the International Preliminary Examining Authority	eceives a copy of any amendments made
under Article 19 or a notice from the applicant that he does not wish to make such box may be marked only where the time limit under Article 19 has not yet expired.	
* Where no check-box is marked, international preliminary examination will start on t	
as originally filed or, where a copy of amendments to the claims under Article 19 and/or an under Article 34 are received by the International Preliminary Examining Authority before or the international preliminary examination report, as so amended.	e it has begun to draw up a written opinion
Language for the purposes of international preliminary examination: English	
which is the language in which the international application was filed.	
which is the language of a translation furnished for the purposes of internation	nal search.
which is the language of publication of the international application.	
which is the language of the translation (to be) furnished for the purposes of interna-	ational preliminary examination.
BOX NO. V ELECTION OF STATES	
The applicant hereby elects all eligible States (that is, all States which have been designat the PCT)	ed and which are bound by Chapter II of
excluding the following States which the applicant wishes not to elect:	
O	i

	Sheet No.	3	PCT/Z	A/99/00096
Box No. VI CHECK LIST				
The demand is accompanied by the following ele Box No. IV, for the purposes of international pr	ments, in the language	e referred to in	Examining A	onal Preliminary uthority use only
1. translation of international application	:	sheets	received	not received
2. amendments under Article 34	:	sheets		
3. copy (or, where required, translation) of				
amendments under Article 19	:	sheets		
 copy (or, where required, translation) of statement under Article 19 	:	sheets		
5. letter	: 1	sheets		
6. other (specify)	:	sheets		
The demand is also accompanied by the item(s) ma	rked below:			
1. fee calculation sheet	4. [statement exp	laining lack of signa	ture
2. separate signed power of attorney	5.	nucleotide an	d or amino acid sequ	ence listing in
 copy of general power of attorney; reference number, if any: 	6. [other (specify,		
Box No. VII SIGNATURE OF APPLICANT, A	GENT OR COMM	ON REPRESENT	TATIVE	
Next to each signature, indicate the name of the person signing	оно те сарасну на ч иси	me person signs (ii sac	n capacity is not obvious	irom reading the demand).
CLELLAND, Sandra, L (Agent)		21 October 1999	9 (21/10/99)	
	al Preliminary Exami	ning Authority use	only —	
Date of actual receipt of DEMAND:				
Adjusted date of receipt of demand due to CORRECTIONS under Rule 60.1(b):				
The date of receipt of the demand is AFT from the priority date and item 4 or 5, b	FER the expiration of elow, does not apply.	19 months	The applicant informed acco	
4. The date of receipt of the demand is W Rule 80.5.	/ITHIN the period of	19 months from t	he priority date as e	extended by virtue of
5. Although the date of receipt of the demis EXCUSED pursuant to Rule 82.	and is after the expira	tion of 19 months 1	from the priority dat	e, the delay in arrival
Fo	or International Burea	u use only		
emand received from IPEA on:				

è

For receiving Office use only
International Application No.
International Filing Date
Name of receiving Office and "PCT International Application"
Name of receiving Office and "PCT International Application"

REQUEST The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty. Applicant's or agent's file reference (if desired) (12 characters maximum) PCT/ZA/F193 Box No. I TITLE OF INVENTION PROCESS FOR PRODUCING MIDDLE DISTILLATES AND MIDDLE DISTILLATES PRODUCED BY THAT PROCESS Box No. II APPLICANT Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.) This person is also inventor. SASOL TECHNOLOGY (PTY) LTD Telephone No. 1 Sturdee Avenue, Rosebank Johannesburg 2196 South Africa Facsimile No. Teleprinter No. State (that is, country) of nationality: State (that is, country) of residence: This person is applicant all designated States all designated States except the United States of America the United States the States indicated in for the purposes of: of America only the Supplemental Box Box No. III FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S) Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.) This person is: DE HAAN, Robert applicant only 20 Felixstowe Street Sasolburg 9570 applicant and inventor South Africa inventor only (If this check-box is marked, do not fill in below.) State (that is, country) of nationality: State (that is, country) of residence: This person is applicant all designated all designated States except the United States of America the United States the States indicated in the Supplemental Box for the purposes of: of America only Further applicants and/or (further) inventors are indicated on a continuation sheet. Box No. IV AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCE The person identified below is hereby/has been appointed to act on behalf X of the applicant(s) before the competent International Authorities as: agent common representative (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.) Name and address: Telephone No. (012) 342 1774 DUNLOP, Alan, J. S.; HAHN, Hans, H.; WILLIAMS, Victor, C.; CLELLAND, Sandra, L. Facsimile No. HAHN & HAHN INC 222 Richard Street, Hatfield (012) 342 1774 Pretoria 0083, South Africa Teleprinter No. Adress for correspondence: Mark this check-box where no agent or common representative is/has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent.

Sheet No. 2

Continuati n f Box No. III FURTHER APPLICANTS AN	D/OR (FURTHER) INVENTORS
If none of the following sub-boxes is used,	his sheet should not be included in the request.
Name and address: (Family name followed by given name; for a legal en The address must include postal code and name of country. The country of Box is the applicant's State (that is, country) of residence if no State of Re	tity, full official designation. the address indicated in this dence is indicated below.) This person is: applicant only applicant and inventor inventor only (If this check-box is marked, do not fill in below.)
State (that is, country) of nationality:	State (that is, country) of residence: ZA
This person is applicant for the purposes of: all designated the United States all designated the United States	States except the United States the States indicated in thes of America only the Supplemental Box
Name and address: (Family name followed by given name; for a legal entitle address must include postal code and name of country. The country of Box is the applicant's State (that is, country) of residence if no State of R	ity, full official designation. he address indicated in this dence is indicated below.) This person is: applicant only applicant and inventor inventor only (If this check-box is marked, do not fill in below.)
State (that is, country) of nationality:	State (that is, country) of residence: ZA
This person is applicant all designated all designated for the purposes of:	States except the United States the States indicated in the Solution the Supplemental Box
Name and address: (Family name followed by given name; for a legal en The address must include postal code and name of country. The country of Box is the applicant's State (that is, country) of residence if no State of resi DE WET, Ewald, Watermeyer 24 Beethoven Street Vanderbijlpark 1911 South Africa	ity, full official designation. he address indicated in this dence is indicated below.) This person is: applicant only applicant and inventor inventor only (If this check-box is marked, do not fill in below.)
State (that is, country) of nationality: ZA	State (that is, country) of residence: ZA
This person is applicant for the purposes of: all designated the United States all designated the United States	States except the United States the States indicated in the sof America only the Supplemental Box
Name and address: (Family name followed by given name; for a legal ent The address must include postal code and name of country. The country of t Box is the applicant's State (that is, country) of residence if no State of residence	ity, full official designation. he address indicated in this dence is indicated below.) This person is: applicant only applicant and inventor inventor only (If this check-box is marked, do not fill in below.)
State (that is, country) of nationality:	State (that is, country) of residence:
This person is applicant for the purposes of: all designated States all designated the United States	States except the United States the States indicated in the Soupplemental Box
Further applicants and/or (further) inventors are indicated or	another continuation sheet.

Sheet No. 3.....

Box No. VI PRIORITY C	LAIM	Further prio	rity claims are indicated	in the Supplemental Box.
Filing date	Number		Where earlier applicat	on is:
of earlier application (day/month/year)	of earlier application	national application: country	regional application:* regional Office	international application: receiving Office
05-10-1998	98/9038	ZA		
	90/9038			
item (2) 11-12-1998	09/209,762	US		
item (3)				
of the earlier application(s	s) (only if the earlier and	nsmit to the International Bur plication was filed with the t the receiving Office) identifi	Office which for the	1
* Where the earlier application is Convention for the Protection of I.				one country party to the Paris
	NAL SEARCHING AU		ieu įkulė 4.10(0)(11)). See	зирріететаї вох.
Choice of International Search (if two or more International Sea competent to carry out the intern the Authority chosen; the two-lette	arching Authorities are se ational search, indicate	Request to use results of ear earch has been carried out by to Date (day/month/year)	clier search; reference or requested from the Inte. Number	to that search (if an earlier rnational Searching Authority): Country (or regional Office)
ISA / EP	I could may be usedy.	rate (day/illollillyear)	Number	Country (or regional Office)
Box No. VIII CHECK LIST	· LANGUAGE OF FIL	INC	·	
This international application c		onal application is accompar	nied by the item(s) mark	ed helow:
he following number of sheet		••	ned by me nem(s) mark	,
request : 4	2. separat	e signed power of attorney		
lescription (excluding equence listing part) : 17	3 copy o	f general power of attorney;	reference number, if an	y:
claims : 5	4. stateme	ent explaining lack of signatu	are	:
abstract : 1	5. priority	document(s) identified in B	lox No. VI as item(s):	<u> </u>
drawings : 1	6. 🔲 transla	tion of international applicati	ion into (language):	
sequence listing part	7. 🔲 separat	e indications concerning dep	osited microorganism o	r other biological material
of description :	8. nucleo	tide and/or amino acid seque	nce listing in computer	readable form
Fotal number of sheets: 28	9. 🔲 other (.	specify):		
Figure of the drawings which should accompany the abstract:		Language of filing of the international application:	ENGLISH	
	OF APPLICANT OR A			
Vext to each signature, indicate the r		nd the capacity in which the perso		- '!
		r receiving Office use only		
Date of actual receipt of the international application:	· ·			2. Drawings:
Corrected date of actual received papers or drawn the purported international a	awings completing			received:
Date of timely receipt of the corrections under PCT Artic	cle 11(2):			not received:
5. International Searching Auti (if two or more are compete	hority nt): ISA /	6. Transmitt until sear	tal of search copy delayers the is paid.	ed
Date of receipt of the record co by the International Bureau:		nternational Bureau use only		

Box	No.V	DESIGNATION OF STATES			
The	follow	ring designations are hereby made under Rule 4.9(a) (n	nark t	he app	licable check-boxes; at least one must be marked):
		Patent		• •	•
X	ΑP	ARIPO Patent: GH Ghana, GM Gambia, KE Kenya, UG Uganda, ZW Zimbabwe, and any other State w	LS Lo	esotho is a (, MW Malawi, SD Sudan, SL Sierra Leone, SZ Swaziland, C ntracting State of the Harare Protocol and of the PCT
	EA	Eurasian Patent: AM Armenia, AZ Azerbaijan,	BY	Belan	us, KG Kyrgyzstan, KZ Kazakhstan, MD Republic of nistan, and any other State which is a Contracting State
Ø	EP	European Patent: AT Austria, BE Belgium, CH : DK Denmark, ES Spain, FI Finland, FR France, GB	Unite	d Kinj	itzerland and Liechtenstein, CY Cyprus, DE Germany, gdom, GR Greece, IE Ireland, IT Italy, LU Luxembourg, y other State which is a Contracting State of the European
X	OA	GA Gabon, GN Guinea, GW Guinea-Bissau, ML Ma any other State which is a member State of OAPI and	li, Mi d a Co	R Mai	Republic, CG Congo, CI Côte d'Ivoire, CM Cameroon, uritania, NE Niger, SN Senegal, TD Chad, TG Togo, and ting State of the PCT (if other kind of protection or treatment
Natio	nal Pat	ent (if other kind of protection or treatment desired, specify (
X	_	United Arab Emirates	_		
X		Albania	X		Liberia
这		Armenia	Ø		Lesotho
Z		Austria and .utility.model	X		Lithuania
Z		Australia	X		Luxembourg
			X	LV	Latvia
Ø		Azerbaijan	X	MD	Republic of Moldova
X		Bosnia and Herzegovina	X		Madagascar
		Barbados	X	MK	The former Yugoslav Republic of Macedonia
区		Bulgaria			
Ø		Brazil	\boxtimes	MN	Mongolia
Ø		Belarus	X	MW	Malawi
X)		Canada	X	MX	Mexico
X I	_	and LI Switzerland and Liechtenstein	X	NO	Norway
		China	X	NZ	New Zealand
図		Cuba	X	PL	Poland
双		Czech Republic and utility model	X	PT	Portugal
X		Germanyand.utility.model.	X	RO	Romania
図		Denmarkand.utilitymodel	X	RU	Russian Federation
×	EE	Estonia .andutility.model	Ø	SD	Sudan
五	ES	Spain	\boxtimes	SE	Sweden
X	FI	Finland and .utility.model.	X	SG	Singapore
X	GB	United Kingdom	23	SI	Slovenia
X	GD	Grenada	X	SK	Slovakia
X	GE	Georgia	53	SL	Sierra Leone
	GH	Ghana	図	TJ	Tajikistan
M	GM	Gambia	X		Turkmenistan
Ø	HR	Croatia	ZX	TR	Turkey
X	HU	Hungary	X	TT	Trinidad and Tobago
	ID	Indonesia	X	UA	_
Ø	IL	Israel	EX		Uganda
囡	IN	India		US	United States of America
X	IS	Iceland	X	TZ	United Republic of Tanzania
K	JР	Japan		UZ	Uzbekistan
X	KE	Kenya	Ŕ		
Z		Kyrgyzstan			Viet Nam
図		Democratic People's Republic of Korea		YU	Yugoslavia
			N N	ZA ZW	South Africa
区		Republic of Korea	Che	ck-ba	xes reserved for designating States which have
X		Kazakhstan	Deco		arty to the PCT after issuance of this sheet:
X	LC	Saint Lucia	X		Costa .Rica
অ	LK	Sri Lanka	X	DM.	Dominica

Precautionary Designation Statement: In addition to the designations made above, the applicant also makes under Rule 4.9(b) all other designations which would be permitted under the PCT except any designation(s) indicated in the Supplemental Box as being excluded from the scope of this statement. The applicant declares that those additional designations are subject to confirmation and that any designation which is not confirmed before the expiration of 15 months from the priority date is to be regarded as withdrawn by the applicant at the expiration of that time limit. (Confirmation of a designation consists of the filing of a notice specifying that designation and the payment of the designation and confirmation fees. Confirmation must reach the receiving Office within the 15-month time limit.)

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PCT	For receiving Office use only
FEE CALCULATION SHEET Annex to the Request	International application No.
Applicant's or agent's file reference PCT/ZA/F193	Date stamp of the receiving Office
Applicant SASOL TECHNOLOGY (PTY) LTD	
CALCULATION OF PRESCRIBED FEES	
1. TRANSMITTAL FEE	ZAR 500.00 T
2. SEARCH FEE	ZAR 1534.50 S
International search to be carried out by EP (If two or more International Searching Authorities are competent in relation application, indicate the name of the Authority which is chosen to carry out the in	n to the international nternational search.)
3. INTERNATIONAL FEE	
Basic Fee The international application contains28sheets.	
first 30 sheets ZAR 2790.00	b1
x=	b2
remaining sheets additional amount	
Add amounts entered at b1 and b2 and enter total at B ZA	R 2790.00 B
Designation Fees The international application contains 102 designations. 10 x 644 = ZA	R 6440.00 D
number of designation fees amount of designation fee	
payable (maximum 10) Add amounts entered at B and D and enter total at I (Applicants from certain States are entitled to a reduction of 75% of international fee. Where the applicant is (or all applicants are) so entitle total to be entered at I is 25% of the sum of the amounts entered at B and the sum of the amounts entered at B and the sum of the amounts entered at B and the sum of the sum of the amounts entered at B and the sum of t	
4. FEE FOR PRIORITY DOCUMENT (if applicable)	ZAR 200.00 P
5. TOTAL FEES PAYABLE	ZAR 11464.50 TOTAL
The designation fees are not paid at this time.	
MODE OF PAYMENT	
authorization to charge deposit account (see below) bank draft cash postal money order cash	coupons other (specify):
Tevenuestamps	
DEPOSIT ACCOUNT AUTHORIZATION (this mode of payment ma	
The RO/ is hereby authorized to charge the total fees in	ndicated above to my deposit account.
(this check-box may be marked only if the conduction hereby authorized to charge any deficiency deposit account.	onditions for deposit accounts of the receiving Office so permit) is or credit any overpayment in the total fees indicated above to my
is hereby authorized to charge the fee for prep Bureau of WIPO to my deposit account.	paration and transmittal of the priority document to the International
Deposit Account No. Date (day/month/year)	Signature

PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 7:

C10L 1/08

A1 (11) IIII

(11) International Publication Number:

WO 00/20535

(43) International Publication Date:

13 April 2000 (13.04.00)

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(22) International Filing Date:

17 September 1999 (17.09.99)

(30) Priority Data:

98/9038 5 October 1998 (05.10.98) ZA 09/209,762 11 December 1998 (11.12.98) US

(71) Applicant: SASOL TECHNOLOGY (PTY) LTD [ZA/ZA]; 1 Sturdee Avenue, Rosebank, 2196 Johannesburg (ZA).

(72) Inventors; and

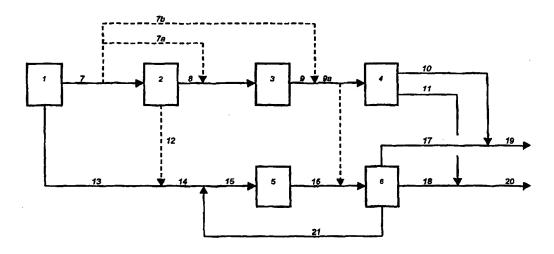
- (75) Inventors/Applicants (for US only): DE HAAN, Robert [ZA/ZA]; 25 Felixstowe Street, 9570 Sasolburg (ZA). DANCUART, Luis, Pablo [ZA/ZA]; 20 Lombard Street, Vaalpark, 9570 Sasolburg (ZA). PRINS, Mark, Jan [NL/ZA]; 61 Waterson Street, 9570 Sasolburg (ZA). DE WET, Ewald, Watermeyer [ZA/ZA]; 24 Beethoven Street, 1911 Vanderbijlpark (ZA).
- (74) Agents: DUNLOP, Alan, J., S. et al.; Hahn & Hahn Inc, 222 Richard Street, Hatfield, 0083 Pretoria (ZA).

(81) Designated States: AE, AL, AM, AT, AT (Utility model), AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, CZ (Utility model), DE, DE (Utility model), DK, DK (Utility model), DM, EE, EE (Utility model), ES, FI, FI (Utility model), GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published

With international search report.

(54) Title: PROCESS FOR PRODUCING MIDDLE DISTILLATES AND MIDDLE DISTILLATES PRODUCED BY THAT PROCESS



(57) Abstract

This invention relates to middle distillates having good cold flow properties, such as the Cold Filter Plugging Point (CFPP) measured in accordance with the IP method (309), and a high Cetane number, as well as to a process for production of such distillates. More particularly, this invention relates to middle distillates produced from a mainly paraffinic synthetic crude which is produced by the reaction of CO and H₂, typically by the Fischer-Tropsch (FT) process. The middle distillates of the invention are predominantly isoparaffinic, the isoparaffins being methyl, ethyl and/or propyl branched. The invention also provides a diesel fuel composition including the middle distillates in accordance with the invention. A process for preparing the middle distillates is also included in the invention.

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference	FOR FURTHER see Notification	of Transmittal of International Search Report
PCT/ZA/F193	ACTION (Form PCT/ISA/2	220) as well as, where applicable, item 5 below.
International application No.	International filing date (day/month/year)	(Earliest) Priority Date (day/month/year)
PCT/ZA 99/00096	17/09/1999	05/10/1998
Applicant		<u> </u>
SASOL TECHNOLOGY (PTY) LTI)	
This International Search Report has been according to Article 18. A copy is being tra	n prepared by this International Searching Auti Insmitted to the International Bureau.	nority and is transmitted to the applicant
This International Search Report consists X It is also accompanied by	of a total of sheets. a copy of each prior art document cited in this	report.
Basis of the report		
 a. With regard to the language, the i language in which it was filed, unle 	nternational search was carried out on the basess otherwise indicated under this item.	sis of the international application in the
the international search was Authority (Rule 23.1(b)).	as carried out on the basis of a translation of the	he international application furnished to this
 b. With regard to any nucleotide and was carried out on the basis of the 	d/or amino acid sequence disclosed in the in	ternational application, the international search
	nal application in written form.	
filed together with the inter	national application in computer readable form	n.
	this Authority in written form.	
	this Authority in computer readble form.	
the statement that the sub- international application as	sequently furnished written sequence listing de filed has been furnished.	oes not go beyond the disclosure in the
the statement that the infor	rmation recorded in computer readable form is	identical to the written sequence listing has been
2. Certain claims were foun	d unsearchable (See Box I).	
3. Unity of invention is lack	ing (see Box II).	
4. With regard to the title,		
X the text is approved as sub	mitted by the applicant.	
·	ed by this Authority to read as follows:	
5. With regard to the abstract,		
the text is approved as sub		
the text has been establish within one month from the	ed, according to Rule 38.2(b), by this Authorit date of mailing of this international search rep	y as it appears in Box III. The applicant may, ort, submit comments to this Authority.
6. The figure of the drawings to be publis		1
as suggested by the applica		None of the figures.
because the applicant failed	_	
because this figure better c	haracterizes the invention.	

INTERNATIONAL SEARCH REPORT

International Application No PCT/ZA 99/00096

A. CLAS	SIFICATION OF SUBJECT MATTER		
IPC 7	C10L1/08		
According	to International Patent Classification (IPC) or to both national cla	ssification and IPC	
B. FIELD	S SEARCHED		
Minimum of IPC 7	documentation searched (classification system followed by class ${\tt C10L}$	ification symbols)	
	tation searched other than minimum documentation to the extent		
	data base consulted during the international search (name of da	ta base and, where practical, search terms used	1)
C. DOCUM	MENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of th	e relevant passages	Relevant to claim No.
X	WO 97 14769 A (EXXON RESEARCH CO) 24 April 1997 (1997-04-24) claims 1,4-6 page 5, paragraphs 3,4 page 6, paragraphs 4,5	ENGINEERING -/	1,13,17, 18,20, 21, 25-27, 33,40, 41,44, 47-54, 58-60, 62-65
X Furth	her documents are listed in the continuation of box C.	χ Patent family members are listed	n annex.
"A" docume conside "E" earlier d filing da "L" documer which is citation "O" docume other m documer later the	nt which may throw doubts on priority claim(s) or is cited to establish the publication date of another or other special reason (as specified) ent referring to an oral disclosure, use, exhibition or	"T" later document published after the inter or priority date and not in conflict with a cited to understand the principle or the invention "X" document of particular relevance; the clustrate cannot be considered novel or cannot involve an inventive step when the document of particular relevance; the clustrate cannot be considered to involve an inventive step when the document is combined with one or more ments, such combination being obvious in the art. "&" document member of the same patent for th	the application but ory underlying the aimed invention be considered to sument is taken alone aimed invention entive step when the re other such docusto a person skilled
	D January 2000 nailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340~2040, Tx. 31 651 epo nl,	28/01/2000 Authorized officer	
	Fax: (+31-70) 340-3016	De Herdt, O	

INTERNATIONAL SEARCH REPORT

International Application No
PCT/ZA 99/00096

C.(Continu	ation) DOCUMENTS CONSIDERED TO BE RELEVANT	FC1/ZA 99/00096
Category 3	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 98 34998 A (EXXON RESEARCH ENGINEERING CO) 13 August 1998 (1998-08-13)	1,13,15, 17,18, 20-22, 25-28, 33-37, 40,41, 44, 47-54, 58-60,
	claims 1,2,4-6,9,11,12 page 2, paragraph 3 page 3, paragraphs 1,3 paragraph '0002!	62-65
CT//SA/210		

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No
PCT/ZA 99/00096

Patent document cited in search repor	t	Publication date		atent family member(s)	Publication date
WO 9714769	Α	24-04-1997	AU	4744999 A	04-11-1999
			AU	4745099 A	04-11-1999
			ΑU	711556 B	14-10-1999
			AU	7395196 A	07-05-1997
			BR	9611080 A	13-07-1999
			CA	2229433 A	24-04-1997
			CN	1197476 A	28-10-1998
			EP	0885275 A	23-12-1998
			NO	981712 A	16-04-1998
WO 9834998	 А	13-08-1998	US	5814109 A	29-09-1998
			EP	0958334 A	24-11-1999
			NO	993739 A	07-10-1999
			ZA	9800621 A	22-07-1998

CHAPTER II

PCT

FEE CALCULATION SHEET

Annex to the Demand for international preliminary examination

	For International Preliminary Examining Authority use only
International application No. PCT/ZA/99/00096	
Applicant's or agent's file reference PCT/ZA/F193	Date stamp of the IPEA
Applicant SASOL TECHNOLOGY (PTY) LTD	
Calculation of prescribed fees	
1. Preliminary examination fee	750 DEM P
2. Handling fee (Applicants from certain States entitled to a reduction of 75% of the handling Where the applicant is (or all applicants are) so titled, the amount to be entered at H is 25% of handling fee.)	fee. en- the
3. Total of prescribed fees Add the amounts entered at P and H and enter total in the TOTAL box	821.25 DEM
Mode of Payment	
authorization to charge deposit account with the IPEA (see below) cheque postal money order bank draft	cash revenue stamps coupons other (specify):
Deposit Account Authorization (this mode of payments) The IPEA/ EP is hereby authorized to a	charge the total fees indicated above to my deposit account.
(this check-box may be m authorized to charge as my deposit account.	narked only if the conditions for deposit accounts of the IPEA so permit) is hereby ny deficiency or credit any overpayment in the total fees indicated above to
Deposit Account Number Date (day/mon.	th/year) Signature
, Date (au)/mon	over, signature

PCT

NOTIFICATION REGARDING THE CONFIRMATION OF PRECAUTIONARY DESIGNATIONS

(PCT Rule 24.2(a), last sentence)

From the INTERNATIONAL BUREAU

To:

DUNLOP, Alan, J., S. Hahn & Hahn Inc 222 Richard Street Hatfield 0083 Pretoria AFRIQUE DU SUD

1/64

Date of mailing (day/month/year)
17 March 2000 (17.03.00)

Applicant's or agent's file reference
PCT/ZA/F193

International application No.
PCT/ZA99/00096

International filing date (day/month/year)
PCT/ZA99/00096

PCT/ZA99/00096

Applicant

SASOL TECHNOLOGY (PTY) LTD

1. The applicant is hereby notified that, pursuant to the confirmation of precautionary designations, the following designated Offices will also be notified of the receipt of the record copy by the International Bureau:

List of designated Offices

National: US

Name(s) of applicant(s) for

the designated States concerned: DE HAAN, Robert, DANCUART, Luis, Pablo, PRINS, Mark, jan, DE WET,

Ewald, Watermeyer.

- 2. This notification complements the Notification of Receipt of Record Copy (Form PCT/IB/301).
- 3. The applicant is reminded that:
 - (i) the data appearing above, and especially the (list of) designation(s) should be carefully checked;
 - (ii) the time limits for entering the national phase in the designated Offices must be monitored by the applicant (see the Annex to Form PCT/IB/301).
- 4. A copy of this notification is being sent to the receiving Office.

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland

Authorized officer

Maria Victoria CORTIELLO

Telephone No. (41-22) 338.83.38

Facsimile No. (41-22) 740.14.35

W:N

ATENT COOPERATION TRE. Y

PCT

NOTIFICATION TO THE DESIGNATED OFFICE OF RECEIPT OF RECORD COPY

(PCT Administrative Instructions, Section 426)

From the INTERNATIONAL BUREAU

To:

Assistant Commissioner for Patents United States Patent and Trademark Office Box PCT Washington, D.C.20231 ETATS-UNIS D'AMERIQUE

in its capacity as designated Office

Date of mailing (day/month/year) 17 March 2000 (17.03.00) Applicant's or agent's file reference PCT/ZA/F193

The designated Office is hereby notified that the International Bureau has received the record copy of the international application identified below:

Applicant(s):

International application No.

PCT/ZA99/00096

International filing date

17 September 1999 (17.09.99)

Priority date(s) claimed

05 October 1998 (05.10.98)

11 December 1998 (11.12.98)

Date of receipt of the record copy

by the International Bureau

02 November 1999 (02.11.99)

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland

Authorized officer

Maria Victoria CORTIELLO

Facsimile No.: (41-22) 740.14.35

Telephone No.: (41-22) 338.83.38

PCT

NOTICE OF CONFIRMATION OF PRECAUTIONARY DESIGNATIONS

(to be filed with the receiving Office)

(PCT Rules 4.9(c) and 15.5)

Applicant's or agent's file reference PCT/F193	International filing date (day/month/year) 17 SEPTEMBER 1999
International application No. PCT/ZA99/00096	(Earliest) Priority date (day/month/year) 5 OCTOBER 1998
Applicant SASOL TECHNOLOGY (PTY) LTD	
The applicant herebyconfirms the following designations of State (respectively).	
Name of State (specify if a regional patent and/or another kind of protection or treatment is/are desired) UNITED STATES OF AMERICA (US)	Name of Applicant(s) for that State DE HAAN, Robert DANCUART, Luis Pablo PRINS, Mark Jan DE WET, Ewald Watermeyer
2. Prescribed fees (Applicants from certain States are entitled designation fee and the confirmation fee. Where the applicant entitled, the total to be entered in the TOTAL box is 25% of that D and C. See Notes to the Fee Calculation Sheet as an PCT/RO/101, for details.)	is (or all applicants are) so
Number of designations confirmed x 161 Amount of designation fee	Total designation fee
Confirmation fee = 50% of the above total +	80.50 C
Total fees payable =	ZAR 241.50 TOTAL
Mode of payment (payment must accompany this notice): authorization to charge deposit account (see below) bank draft cheque cash postal money order revenue stamps	coupons other (specify):
3 Signature of applicant or agent	
S.L.CLO 12 NOVEMBER CLELLAND, Sandra L (Agent) DATE	? ।ववद _्
	otal fees indicated above to my deposit account. deficiency or credit any overpayment in the total fees unt.
Deposit Account Number Date (day/month/year)	Signature

Form PCT/RO/144 (January 1996)

PCT

NOTIFICATION OF RECEIPT OF RECORD COPY

(PCT Rule 24.2(a))

From the INTERNATIONAL BUREAU

To:

DUNLOP, Alan, J., S. Hahn & Hahn Inc. 222 Richard Street Hatfield 0083 Pretoria AFRIQUE DU SUD

Date of mailing (day/month/year) 08 November 1999 (08.11.99)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference PCT/ZA/F193	International application No. PCT/ZA99/00096

The applicant is hereby notified that the International Bureau has received the record copy of the international application as detailed below.

Name(s) of the applicant(s) and State(s) for which they are applicants:

SASOL TECHNOLOGY (PTY) LTD (all designated States)

International filing date

17 September 1999 (17.09.99)

Priority date(s) claimed

05 October 1998 (05.10.98)

Date of receipt of the record copy

11 December 1998 (11.12.98)

by the International Bureau

02 November 1999 (02.11.99)

List of designated Offices

AP:GH,GM,KE,LS,MW,SD,SL,SZ,TZ,UG,ZW

EA: AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

EP :AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

OA: BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

National: AE,AL,AM,AT,AU,AZ,BA,BB,BG,BR,BY,CA,CH,CN,CR,CU,CZ,DE,DK,DM,EE,ES,FI,GB,GD,GE,GH,GM,HR,HU,ID,HL,M,IS,JP,KE,KG,RP,KR,KZ,LC,LK,LR,LS,LT,LU,LV,MD,MG,MK,MN,MW,MX,NO,NZ,PL,PT,RO,RU,SD,SE,SG,SI,SK,SL,TJ,TM,TR,TT,TZ,UA,UG,UZ,VN,YU,ZA,ZW

ATTENTION

The applicant should carefully check the data appearing in this Notification. In case of any discrepancy between these data and the indications in the international application, the applicant should immediately inform the International Bureau.

In addition, the applicant's attention is drawn to the information contained in the Annex, relating to:

X	time limits for entry into the national phase
	confirmation of precautionary designations

2 3 446 1779

X requirements regarding priority documents

A copy of this Notification is being sent to the receiving Office and to the International Searching Authority.

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Authorized officer:

Maria Victoria CORTIELLO

Telephone No. (41-22) 338.83.38

Facsimile No. (41-22) 740.14.35

Form PCT/IB/301 (July 1998)

002940946

ANNEX TO FORM PCT/IB/301

INFORMATION ON TIME LIMITS FOR ENTERING THE NATIONAL PHASE

The applicant is reminded that the "national phase" must be entered before each of the designated Offices indicated in the Notification of Receipt of Record Copy (Form PCT/IB/301) by paying national fees and furnishing translations, as prescribed by the applicable national laws.

The time limit for performing these procedural acts is 20 MONTHS from the priority date or, for those designated States which the applicant elects in a demand for international preliminary examination or in a later election, 30 MONTHS from the priority date, provided that the election is made before the expiration of 19 months from the priority date. Some designated (or elected) Offices have fixed time limits which expire even later than 20 or 30 months from the priority date. In other Offices an extension of time or grace period, in some cases upon payment of an additional fee, is available.

In addition to these procedural acts, the applicant may also have to comply with other special requirements applicable in certain Offices. It is the applicant's responsibility to ensure that the necessary steps to enter the national phase are taken in a timely fashion. Most designated Offices do not issue reminders to applicants in connection with the entry into the national phase.

For detailed information about the procedural acts to be performed to enter the national phase before each designated Office, the applicable time limits and possible extensions of time or grace periods, and any other requirements, see the relevant Chapters of Volume II of the PCT Applicant's Guide. Information about the requirements for filing a demand for international preliminary examination is set out in Chapter IX of Volume I of the PCT Applicant's Guide.

GR and ES became bound by PCT Chapter II on 7 September 1996 and 6 September 1997, respectively, and may, therefore, be elected in a demand or a later election filed on or after 7 September 1996 and 6 September 1997, respectively, regardless of the filing date of the international application. (See second paragraph above.)

Note that only an applicant who is a national or resident of a PCT Contracting State which is bound by Chapter II has the right to file a demand for international preliminary examination.

CONFIRMATION OF PRECAUTIONARY DESIGNATIONS

This notification lists only specific designations made under Rule 4.9(a) in the request. It is important to check that these designations are correct. Errors in designations can be corrected where precautionary designations have been made under Rule 4.9(b). The applicant is hereby reminded that any precautionary designations may be confirmed according to Rule 4.9(c) before the expiration of 15 months from the priority date. If it is not confirmed, it will automatically be regarded as withdrawn by the applicant. There will be no reminder and no invitation. Confirmation of a designation consists of the filing of a notice specifying the designated State concerned (with an indication of the kind of protection or treatment desired) and the payment of the designation and confirmation fees. Confirmation must reach the receiving Office within the 15-month time limit.

REQUIREMENTS REGARDING PRIORITY DOCUMENTS

For applicants who have not yet complied with the requirements regarding priority documents, the following is recalled.

Where the priority of an earlier national, regional or international application is claimed, the applicant must submit a copy of the said earlier application, certified by the authority with which it was filed ("the priority document") to the receiving Office (which will transmit it to the International Bureau) or directly to the International Bureau, before the expiration of 16 months from the priority date, provided that any such priority document may still be submitted to the International Bureau before that date of international publication of the international application, in which case that document will be considered to have been received by the International Bureau on the last day of the 16-month time limit (Rule 17.1(a)).

Where the priority document is issued by the receiving Office, the applicant may, instead of submitting the priority document, request the receiving Office to prepare and transmit the priority document to the International Bureau. Such request must be made before the expiration of the 16-month time limit and may be subjected by the receiving Office to the payment of a fee (Rule 17.1(b)).

If the priority document concerned is not submitted to the International Bureau or if the request to the receiving Office to prepare and transmit the priority document has not been made (and the corresponding fee, if any, paid) within the applicable time limit indicated under the preceding paragraphs, any designated State may disregard the priority claim, provided that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity to furnish the priority document within a time limit which is reasonable under the circumstances.

Where several priorities are claimed, the priority date to be considered for the purposes of computing the 16-month time limit is the filing date of the earliest application whose priority is claimed.

From the INTERNATIONAL SEARCHING AUTHORITY NOTIFICATION OF TRANSMITTAL OF HAHN & HAHN INC. THE INTERNATIONAL SEARCH REPORT Attn. DUNLOP, A. OR THE DECLARATION 222 Richard Street Hatfield 0083, Pretoria (PCT Rule 44.1) SOUTH AFRICA Date of mailing (day/month/year) 28/01/2000 Applicant's or agent's file reference FOR FURTHER ACTION PCT/ZA/F193 See paragraphs 1 and 4 below International application No. International filing date (day/month/year) PCT/ZA 99/00096 17/09/1999 Applicant SASOL TECHNOLOGY (PTY) LTD 1. X The applicant is hereby notified that the International Search Report has been established and is transmitted herewith. Filing of amendments and statement under Article 19: The applicant is entitled, if he so wishes, to amend the claims of the International Application (see Rule 46): The time limit for filing such amendments is normally 2 months from the date of transmittal of the When? International Search Report; however, for more details, see the notes on the accompanying sheet. Where? Directly to the International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Fascimile No.: (41-22) 740.14.35 For more detailed instructions, see the notes on the accompanying sheet. The applicant is hereby notified that no International Search Report will be established and that the declaration under Article 17(2)(a) to that effect is transmitted herewith. With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that: the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices. no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made. 4. Further action(s): The applicant is reminded of the following: Shortly after 18 months from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90bis.1 and 90bis.3, respectively, before the completion of the technical preparations for international publication. Within 19 months from the priority date, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until 30 months from the priority date (in some Offices even Tater). Within 20 months from the priority date, the applicant must perform the prescribed acts for entry into the national phase before all designated Offices which have not been elected in the demand or in a later election within 19 months from the

Name and mailing address of the International Searching Authority

European Patent Office, P.B. 5818 Patentlaan 2

NL-2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Patrick Gehl

priority date or could not be elected because they are not bound by Chapter II.

NOTES TO FORM PCT/ISA/220

These Notes are intended to give the basic instructions concerning the filing of amendments under article 19. The Notes are based on the requirements of the Patent Cooperation Treaty, the Regulations and the Administrative Instructions under that Treaty. In case of discrepancy between these Notes and those requirements, the latter are applicable. For more detailed information, see also the PCT Applicant's Guide, a publication of WIPO.

In these Notes, "Article", "Rule", and "Section" refer to the provisions of the PCT, the PCT Regulations and the PCT Administrative Instructions respectively.

INSTRUCTIONS CONCERNING AMENDMENTS UNDER ARTICLE 19

The applicant has, after having received the international search report, one opportunity to amend the claims of the international application. It should however be emphasized that, since all parts of the international application (claims, description and drawings) may be amended during the international preliminary examination procedure, there is usually no need to file amendments of the claims under Article 19 except where, e.g. the applicant wants the latter to be published for the purposes of provisional protection or has another reason for amending the claims before international polication. Furthermore, it should be emphasized that provisional protection is available in some States only.

What parts of the international application may be amended?

Under Article 19, only the claims may be amended.

During the international phase, the claims may also be amended (or further amended) under Article 34 before the International Preliminary Examining Authority. The description and drawings may only be amended under Article 34 before the International Examining Authority.

Upon entry into the national phase, all parts of the international application may be amended under Article 28 or, where applicable, Article 41.

When?

Within 2 months from the date of transmittal of the international search report or 16 months from the priority date, whichever time limit expires later. It should be noted, however, that the amendments will be considered as having been received on time if they are received by the international Bureau after the expiration of the applicable time limit but before the completion of the technical preparations for international publication (Rule 46.1).

Where not to file the amendments?

The amendments may only be filed with the International Bureau and not with the receiving Office or the International Searching Authority (Rule 46.2).

Where a demand for international preliminary examination has been its filed, see below.

How?

Either by cancelling one or more entire claims, by adding one or more new claims or by amending the text of one or more of the claims as filed.

A replacement sheet must be submitted for each sheet of the claims which, on account of an amendment or amendments, differs from the sheet originally filed.

All the claims appearing on a replacement sheet must be numbered in Arabic numerals. Where a claim is cancelled, no renumbering of the other claims is required. In all cases where claims are renumbered, they must be renumbered consecutively (Administrative Instructions, Section 205(b)).

The amendments must be made in the language in which the international application is to be published.

What documents must/may accompany the amendments?

Letter (Section 205(b)):

The amendments must be submitted with a letter.

The letter will not be published with the international application and the amended claims. It should not be confused with the "Statement under Article 19(1)" (see below, under "Statement under Article 19(1)").

The letter must be in English or French, at the choice of the applicant. However, if the language of the international application is English, the letter must be in English; if the language of the international application is French, the letter must be in French.

Notes to Form PCT/ISA/220 (first sheet) (January 1994)

NOTES TO FORM PCT/ISA/220 (continued)

The letter must indicate the differences between the claims as filed and the claims as amended. It must, in particular, indicate, in connection with each claim appearing in the international application (it being understood that identical indications concerning several claims may be grouped), whether

- (i) the claim is unchanged;
- (ii) the claim is cancelled;
- (iii) the claim is new;
- (iv) the claim replaces one or more claims as filed;
- (v) the claim is the result of the division of a claim as filed.

The following examples illustrate the manner in which amendments must be explained in the accompanying letter:

- [Where originally there were 48 claims and after amendment of some claims there are 51]:
 "Claims 1 to 29, 31, 32, 34, 35, 37 to 48 replaced by amended claims bearing the same numbers; claims 30, 33 and 36 unchanged; new claims 49 to 51 added."
- [Where originally there were 15 claims and after amendment of all claims there are 11]: "Claims 1 to 15 replaced by amended claims 1 to 11."
- [Where originally there were 14 claims and the amendments consist in cancelling some claims and in adding new claims]:
 "Claims 1 to 6 and 14 unchanged; claims 7 to 13 cancelled; new claims 15, 16 and 17 added." or "Claims 7 to 13 cancelled; new claims 15, 16 and 17 added; all other claims unchanged."
- 4. [Where various kinds of amendments are made]: "Claims 1-10 unchanged; claims 11 to 13, 18 and 19 cancelled; claims 14, 15 and 16 replaced by amended claim 14; claim 17 subdivided into amended claims 15, 16 and 17; new claims 20 and 21 added."

"Statement under article 19(1)" (Rule 46.4)

The amendments may be accompanied by a statement explaining the amendments and indicating any impact that such amendments might have on the description and the drawings (which cannot be amended under Article 19(1)).

The statement will be published with the international application and the amended claims.

It must be in the language in which the international appplication is to be published.

It must be brief, not exceeding 500 words if in English or if translated into English.

It should not be confused with and does not replace the letter indicating the differences between the claims as filed and as amended. It must be filed on a separate sheet and must be identified as such by a heading, preferably by using the words "Statement under Article 19(1)."

It may not contain any disparaging comments on the international search report or the relevance of citations contained in that report. Reference to citations, relevant to a given claim, contained in the international search report may be made only in connection with an amendment of that claim.

Consequence if a demand for international preliminary examination has already been filed

If, at the time of filing any amendments under Article 19, a demand for international preliminary examination has already been submitted, the applicant must preferably, at the same time of filing the amendments with the International Bureau, also file a copy of such amendments with the International Preliminary Examining Authority (see Rule 62.2(a), first sentence).

Consequence with regard to translation of the international application for entry into the national phase

The applicant's attention is drawn to the fact that, where upon entry into the national phase, a translation of the claims as amended under Article 19 may have to be furnished to the designated/elected Offices, instead of, or in addition to, the translation of the claims as filed.

For further details on the requirements of each designated/elected Office, see Volume II of the PCT Applicant's Guide.

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION CONCERNING SUBMISSION OR TRANSMITTAL OF PRIORITY DOCUMENT

(PCT Administrative Instructions, Section 411)

DUNLOP, Alan, J., S. Hahn & Hahn Inc. 222 Richard Street Hatfield

0083 Pretoria AFRIQUE DU SUD

Date of mailing (day/month/year)
06 March 2000 (06.03.00)

Applicant's or agent's file reference
PCT/ZA/F193

International application No.
PCT/ZA99/00096

International publication date (day/month/year)
Not yet published

Priority date (day/month/year)
Not yet published

Applicant

IMPORTANT NOTIFICATION

International filing date (day/month/year)
Priority date (day/month/year)
O5 October 1998 (05.10.98)

- SASOL TECHNOLOGY (PTY) LTD
- 1. The applicant is hereby notified of the date of receipt (except where the letters "NR" appear in the right-hand column) by the International Bureau of the priority document(s) relating to the earlier application(s) indicated below. Unless otherwise indicated by an asterisk appearing next to a date of receipt, or by the letters "NR", in the right-hand column, the priority document concerned was submitted or transmitted to the International Bureau in compliance with Rule 17.1(a) or (b).
- 2. This updates and replaces any previously issued notification concerning submission or transmittal of priority documents.
- 3. An asterisk(*) appearing next to a date of receipt, in the right-hand column, denotes a priority document submitted or transmitted to the International Bureau but not in compliance with Rule 17.1(a) or (b). In such a case, the attention of the applicant is directed to Rule 17.1(c) which provides that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity, upon entry into the national phase, to furnish the priority document within a time limit which is reasonable under the circumstances.
- 4. The letters "NR" appearing in the right-hand column denote a priority document which was not received by the International Bureau or which the applicant did not request the receiving Office to prepare and transmit to the International Bureau, as provided by Rule 17.1(a) or (b), respectively. In such a case, the attention of the applicant is directed to Rule 17.1(c) which provides that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity, upon entry into the national phase, to furnish the priority document within a time limit which is reasonable under the circumstances.

<u>Priority date</u>	Priority application No.	Country or regional Office or PCT receiving Office	Date of receipt of priority document
05 Octo 1998 (05.10.98)	98/9038	ZA	31 Janu 2000 (31.01.00)
11 Dece 1998 (11.12.98)	09/209,762	US	09 Febr 2000 (09.02.00)

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Authorized officer

V. Gross

Telephone No. (41-22) 338.83.38

Form PCT/IB/304 (July 1998)

Facsimile No. (41-22) 740.14.35

003146347

PCT

NOTICE INFORMING THE APPLICANT OF THE **COMMUNICATION OF THE INTERNATIONAL** APPLICATION TO THE DESIGNATED OFFICES

(PCT Rule 47.1(c), first sentence)

SASOL TECHNOLOGY (PTY) LTD et al

From the INTERNATIONAL BUREAU

DUNLOP, Alan, J., S. Hahn & Hahn Inc 222 Richard Street Hatfield 0083 Pretoria AFRIQUE DU SUD

Date of mailing (day/month/year) 13 April 2000 (13.04.00)		
Applicant's or agent's file reference PCT/ZA/F193		MPORTANT NOTICE
International application No. PCT/ZA99/00096	late (day/month/year) er 1999 (17.09.99)	Priority date (day/month/year) 05 October 1998 (05.10.98)
Applicant		

1. Notice is hereby given that the International Bureau has communicated, as provided in Article 20, the international application to the following designated Offices on the date indicated above as the date of mailing of this Notice: AU, CN, JP, KP, KR, US

In accordance with Rule 47.1(c), third sentence, those Offices will accept the present Notice as conclusive evidence that the communication of the international application has duly taken place on the date of mailing indicated above and no copy of the international application is required to be furnished by the applicant to the designated Office(s).

- 2. The following designated Offices have waived the requirement for such a communication at this time:
 - AE,AL,AM,AP,AT,AZ,BA,BB,BG,BR,BY,CA,CH,CR,CU,CZ,DE,DK,DM,EA,EE,EP,ES,FI,GB,GD,GE, GH,GM,HR,HU,ID,IL,IN,IS,KE,KG,KZ,LC,LK,LR,LS,LT,LU,LV,MD,MG,MK,MN,MW,MX,NO,NZ,OA, PL,PT,RO,RU,SD,SE,SG,SI,SK,SL,TJ,TM,TR,TT,TZ,UA,UG,UZ,VN,YU,ZA,ZW
 The communication will be made to those Offices only upon their request. Furthermore, those Offices do not require the

applicant to furnish a copy of the international application (Rule 49.1(a-bis)).

3. Enclosed with this Notice is a copy of the international application as published by the International Bureau on 13 April 2000 (13.04.00) under No. WO 00/20535

REMINDER REGARDING CHAPTER II (Article 31(2)(a) and Rule 54.2)

If the applicant wishes to postpone entry into the national phase until 30 months (or later in some Offices) from the priority date, a demand for international preliminary examination must be filed with the competent International Preliminary Examining Authority before the expiration of 19 months from the priority date.

It is the applicant's sole responsibility to monitor the 19-month time limit.

Note that only an applicant who is a national or resident of a PCT Contracting State which is bound by Chapter II has the right to file a demand for international preliminary examination.

REMINDER REGARDING ENTRY INTO THE NATIONAL PHASE (Article 22 or 39(1))

If the applicant wishes to proceed with the international application in the national phase, he must, within 20 months or 30 months, or later in some Offices, perform the acts referred to therein before each designated or elected Office.

For further important information on the time limits and acts to be performed for entering the national phase, see the Annex to Form PCT/IB/301 (Notification of Receipt of Record Copy) and Volume II of the PCT Applicant's Guide.

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland

Authorized officer

J. Zahra

Telephone No. (41-22) 338.83.38

Facsimile No. (41-22) 740.14.35

PCT

INFORMATION CONCERNING ELECTED OFFICES NOTIFIED OF THEIR ELECTION

(PCT Rule 61.3)

From the INTERNATIONAL BUREAU

DUNLOP, Alan, J., S. Hahn & Hahn Inc 222 Richard Street Hatfield 0083 Pretoria **AFRIQUE DU SUD**

Date of mailing (day/month/year)

13 April 2000 (13.04.00)

Applicant's or agent's file reference

PCT/ZA/F193

IMPORTANT INFORMATION

International application No.

PCT/ZA99/00096

International filing date (day/month/year) 17 September 1999 (17.09.99) Priority date (day/month/year)

05 October 1998 (05.10.98)

Applicant

SASOL TECHNOLOGY (PTY) LTD et al

- 1. The applicant is hereby informed that the International Bureau has, according to Article 31(7), notified each of the following Offices of its election:
 - AP:GH,GM,KE,LS,MW,SD,SL,SZ,TZ,UG,ZW
 - EP:AT,BE,CH,CY,DE,DK,ES,FI,FR,GB,GR,IE,IT,LU,MC,NL,PT,SE

National: AU, BG, BR, CA, CN, CZ, DE, IL, JP, KP, KR, MN, NO, NZ, PL, RO, RU, SE, SK

- 2. The following Offices have waived the requirement for the notification of their election; the notification will be sent to them by the International Bureau only upon their request:
 - EA:AM,AZ,BY,KG,KZ,MD,RU,TJ,TM
 - OA:BF,BJ,CF,CG,CI,CM,GA,GN,GW,ML,MR,NE,SN,TD,TG
 - National: AE,AL,AM,AT,AZ,BA,BB,BY,CH,CR,CU,DK,DM,EE,ES,FI,GB,GD,GE,GH,GM,
 - HR,HU,ID,IN,IS,KE,KG,KZ,LC,LK,LR,LS,LT,LU,LV,MD,MG,MK,MW,MX,PT,SD,SG,SI, SL,TJ,TM,TR,TT,TZ,UA,UG,UZ,VN,YU,ZA,ZW
- 3. The applicant is reminded that he must enter the "national phase" before the expiration of 30 months from the priority date before each of the Offices listed above. This must be done by paying the national fee(s) and furnishing, if prescribed, a translation of the international application (Article 39(1)(a)), as well as, where applicable, by furnishing a translation of any annexes of the international preliminary examination report (Article 36(3)(b) and Rule 74.1).

Some offices have fixed time limits expiring later than the above-mentioned time limit. For detailed information about the applicable time limits and the acts to be performed upon entry into the national phase before a particular Office, see Volume II of the PCT Applicant's Guide.

The entry into the European regional phase is postponed until 31 months from the priority date for all States designated for the purposes of obtaining a European patent.

The International Bureau of WIPO 34, chemin des Col mbettes 1211 Geneva 20, Switzerland

Authorized officer:

J. Zahra

Telephone No. (41-22) 338.83.38

Facsimile No. (41-22) 740.14.35 Form PCT/IB/332 (September 1997)

From the

INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

DUNLOP, Alan et al. HAHN & HAHN INC. 222 Richard Street Hatfield 0083, Pretoria AFRIQUE DU SUD

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Rule 71.1)

Date of mailing

(day/month/year)

15.01.2001

Applicant's or agent's file reference

PCT/ZA/F193

IMPORTANT NOTIFICATION

International application No. PCT/ZA99/00096

International filing date (day/month/year)

Priority date (day/month/year)

17/09/1999 05/10/1998

Applicant

SASOL TECHNOLOGY (PTY) LTD

- 1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
- 2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
- 3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

Name and mailing address of the IPEA/

Authorized officer

European Patent Office D-80298 Munich

Michaleczek, N

Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465

Tel.+49 89 2399-7254



PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

ΓAD	olicant's	or age	ent's file reference			O N - N - N - N - N	attended Township of Intermedianal
1	CT/ZA/F			FOR FURTHER ACTIO			ation of Transmittal of International Examination Report (Form PCT/IPEA/416)
Inte	emationa	l appl	ication No.	International filing date (day/r	nonth/y	ear)	Priority date (day/month/year)
PC	PCT/ZA99/00096 17/09/1999						05/10/1998
C1	oL1/08		ent Classification (IPC) or na	ational classification and IPC			
SA	SOL T	ECH	INOLOGY (PTY) LTD				
1.			ational preliminary exam smitted to the applicant a		oared t	y this Inte	ernational Preliminary Examining Authority
2.	This F	REPC	PRT consists of a total of	5 sheets, including this co	ver she	et.	
	This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).						
	These annexes consist of a total of sheets.						
3.	This re	eport	contains indications rela	ating to the following items:			
	1	\boxtimes	Basis of the report				
	11		Priority				
ļ	Ш		Non-establishment of o	pinion with regard to novelt	y, inve	ntive step	and industrial applicability
	IV		Lack of unity of invention	on			
	V Material Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations suporting such statement					entive step or industrial applicability;	
VI Certain documents cited							
	VII 🛮 Certain defects in the international application						
	VIII	×	Certain observations o	n the international application	on		
Dat	e of subi	missio	on of the demand	Da	ate of co	mpletion o	f this report
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		exam Euro D-80 Tel.	g address of the international ining authority: opean Patent Office 0298 Munich +49 89 2399 - 0 Tx: 523656	Na 6 epmu d	azario		TO STAND TO STAND THE STAN
í		rax:	+49 89 2399 - 4465	l To	Janhane	No +49 8	9 2399 8137

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/ZA99/00096

	l.	Basis	of the	report
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	the	sponse to an invitation e report since they do escription, pages:	on under Article 14 are referred to in this report as "originally filed" and are not annexed to not contain amendments (Rules 70.16 and 70.17).):				
	1-		as originally filed				
	Cla	aims, No.:					
	1-6	65	as originally filed				
	Dra	awings, sheets:					
	1/1	;	as originally filed				
2.	Wit lan	h regard to the lang guage in which the ir	uage, all the elements marked above were available or furnished to this Authority in the nternational application was filed, unless otherwise indicated under this item.				
	The	ese elements were a	vailable or furnished to this Authority in the following language: , which is:				
			ranslation furnished for the purposes of the international search (under Rule 23.1(b)).				
		the language of put	plication of the international application (under Rule 48.3(b)).				
		the language of a tr 55.2 and/or 55.3).	ranslation furnished for the purposes of international preliminary examination (under Rule				
3.	Wit inte	h regard to any nucl or rnational preliminary	eotide and/or amino acid sequence disclosed in the international application, the examination was carried out on the basis of the sequence listing:				
		contained in the inte	ernational application in written form.				
		filed together with the	ne international application in computer readable form.				
		☐ furnished subsequently to this Authority in written form.					
		furnished subsequently to this Authority in computer readable form.					
			the subsequently furnished written sequence listing does not go beyond the disclosure in plication as filed has been furnished.				
		The statement that listing has been furn	the information recorded in computer readable form is identical to the written sequence nished.				
4.	The	amendments have r	resulted in the cancellation of:				
		the description,	pages:				
		the claims,	Nos.:				

1. This report has been drawn on the basis of (substitute sheets which have been furnished to the receiving Office in

INTERNATIONAL PRELIMINARY **EXAMINATION REPORT**

International application No. PCT/ZA99/00096

ш	tne arawings,	sneets:	

5.

This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)

Yes:

Claims 2-12, 14, 16, 19, 23, 32, 38, 39, 42, 43, 45, 46, 55-57, 61

No:

Claims 1, 13, 15, 17, 18, 20-22, 24-31, 33-37, 40, 41, 44, 47-54, 58-60

and 62-65

Inventive step (IS)

Yes: No:

Yes:

Claims

Claims 1-65

Industrial applicability (IA)

Claims 1-65

No: Claims

2. Citations and explanations see separate sheet

VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted: see separate sheet

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made: see separate sheet

EXAMINATION REPORT - SEPARATE SHEET

R Item V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Reference is made to the following documents:

> D1: WO-A-97 14 769 D2: WO-A-98 34 998

Both D1 and D2 disclose diesel fuels, or blending stocks that comprise more than 2. 50% isoparaffins. The cited documents also disclose that such fuels or compositions improve the cetane number and lubricity. The compositions are produced by blending a hydrotreated Fischer-Tropsch fraction with a lighter non-hydrotreated one. (D1: abstract, page 1, 1st paragraph, page 5, 2nd and 3rd paragraph, page 6, 5th and 6th paragraph, page 13 to page 14, table 2, cl. 1, 4 and 5, figure; D2, abstract, page 1, 1st paragraph, page 2, 1st to 3rd paragraph, page 3, paragraphs 1 to 3, cl. 1-12, figure).

Therefore, the subject-matter of claims 1, 13, 15, 17, 18, 20-22, 24-31, 33-37, 40, 41, 44, 47-54, 58-60 and 62-65 is not novel and does not fulfill the requirements of article 33(2) PCT.

The additional features of claims 2-12, 14, 16, 19, 23, 32, 38, 39, 42, 43, 45, 46, 55-3. 57 and 61 are neither disclosed in D1 nor in D2 and are therefore novel and fulfill the requirements of article 33(3) PCT.

However, such distinguishing features are banal and do not involve and inventive step per se and would only be allowable in combination with a new and inventive independent claim. Furthermore, the applicant's attention is drawn to the fact that the selection of particular physical parameters can only be considered as involving an inventive step if a surprising or unexpected effect can be shown.

Therefore, the subject-matter of the above claims does not involve an inventive step and does not fulfill the requirements of article 33(3) PCT.

Re Item VII

Certain defects in the international application

Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in D1 and D2 is not mentioned in the description, nor are these documents identified therein.

Re Item VIII

Certain observations on the international application

- To fulfill the requirements of article 6 PCT the following have to be addressed: 1.
- 1.1. Although the subject-matter of claim 8 relates to a product, it does not contain any technical features of the said product but refers to a process feature.
- 1.2. Claims 24 and 52-57 attempt to define the subject-matter in terms of the result to be achieved, it does not contain any technical features (elements of the solution) necessary for achieving the result.
- 1.3. The use of vague and imprecise terms, such as "narrow", "some", "a fraction". "substantially" and "new", render the claims unclear (see also, PCT Guidelines, III-4.5). Therefore, it would seem appropriate to redraft the claims so that the subjectmatter can be clearly perceived.
- 1.4. Claims 20 and 50 are unclear because they additionally specify that the iso- to nparaffin ratio is comprised between 0.33 and 0.8. However, claim 1 specifies that minimum content for isoparaffins is 0.5.
- 1.5. The subject-matter of claims 17-23, 28, 45-46 and 50-51 does not seem to be supported by the description.
- 2. The subject-matter of claims 62-65 does not fulfill the requirements of Rule 6.2a PCT (see also, PCT Guidelines, III-4.10).